

REMARKS

I. 35 U.S.C. § 102(b) Rejection

Claims 29-43 are pending in the application. Claims 29-34, 36, 38-41 and 43 have been rejected under 35 U.S.C. § 102(b) as being anticipated by SU 1457921A1 (Volodos et al.). Applicants respectfully traverse the rejection. Applicants gratefully acknowledge the courtesies extended by Examiners Jackson, Willse and McDermott in the personal interview held May 1, 2002. A translated version of the Volodos et al. patent was discussed during the interview. At the conclusion of the interview, Examiner Jackson agreed to withdraw the § 102(b) rejection over Volodos (Karpovick) SU 1457921A1, as indicated in the Interview Summary. Specifically, it was agreed in the interview that the Volodos et al. reference does not disclose the length or diameter of the fixing elements 3, 4 in either the specification or the drawings. See M.P.E.P. § 2125.

II. 35 U.S.C. § 103 Rejection

Claim 42 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Volodos et al. because it would have been obvious to a person having ordinary skill in the art to weld resilient rods 5 to elements 3 and 4 as a means of attaching two rings together. Applicants respectfully traverse the rejection. There is no teaching or suggestion in the Volodos et al. reference to use a weld of any kind. Accordingly, it is respectfully requested that the rejection of claim 42 under 35 U.S.C. § 103(a) be withdrawn.

III. Amended Claims

Claims 29, 40 and 43 have been amended. Please note these amendments were not made in order to distinguish over the Volodos patent since the § 102(b) rejection under this reference was withdrawn during the interview. Rather, these amendments were made to further clarify the invention. The claims have been amended to include the length of the cylindrical elements (or undulating portions) to be less than 2.5 mm. As acknowledged by the Examiners during the interview, the stent can be expanded to an outer diameter of 0.1 inch (2.5 mm) or more (see the specification at page 12, lines 6-9). In the Summary of the Invention, the cylindrical elements are described as being "dimensioned so as to be longitudinally shorter than their own diameters." (page 2, lines 20-25) Thus, the length of each cylindrical element is less than its diameter, namely less than 2.5 mm. The shortness of the cylindrical elements enhances the flexibility of the stent, a

feature that is disclosed in numerous places in the specification. For example, the specification states:

The present invention is directed to an expandable stent which is relatively flexible along its longitudinal axis to facilitate delivery through tortuous body lumens, but which is stiff and stable enough radially in an expanded condition to maintain the patency of a body lumen such as an artery when implanted therein.

The stent of the invention generally includes a plurality of radially expandable cylindrical elements which are relatively independent in their ability to expand and to flex relative to one another. The individual radially expandable cylindrical elements of the stent are dimensioned so as to be longitudinally shorter than their own diameters. Interconnecting elements or struts extending between adjacent cylindrical elements provide increased stability and a preferable position to prevent warping of the stent upon the expansion thereof. The resulting stent structure is a series of radially expandable cylindrical elements which are spaced longitudinally close enough so that small dissections in the wall of a body lumen may be pressed back into position against the luminal wall, but not so close as to compromise the longitudinal flexibilities of the stent. (page 2, lines 14-34)

Thus, the invention of the present claims is directed to shorter cylindrical elements (less than 2.5 mm long), which enhances flexibility, as set forth in the specification.

As explained above, this amendment is fully supported by the specification as originally filed. See, e.g., the specification at page 2, lines 14-34 and page 12, lines 6-9.

IV. Double Patenting

Claims 29-43 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 5,514,154. While

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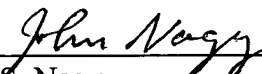
Applicants believe that claims 29-43 are patentably distinguishable over claims 1-23 of the '154 patent, in the interest of expediting the issuance of the application, a terminal disclaimer is being filed concurrently herewith.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

The rejection under §102(b) has been withdrawn, and in view of the foregoing, it is respectfully requested that the rejection under 35 U.S.C. §103(a) also be withdrawn and the claims passed to issue. The undersigned can be reached at (310) 824-5555 to facilitate prosecution of the application.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

29. (amended) A longitudinally flexible stent, comprising:

a plurality of interconnected cylindrical elements aligned along a stent longitudinal axis, each cylindrical element having a shape configured to enable the cylindrical element to expand with the inflation of an expandable member disposed therein; [and]

wherein each of the cylindrical elements has a diameter and a length, the length of each cylindrical element being less than the diameter of the cylindrical element upon inflation of the expandable member[.] and

the cylindrical elements having a length less than 2.5 mm.

40. (amended) A balloon expandable longitudinally flexible stent, comprising:

a stent pattern having a plurality of single undulating portions extending circumferentially about a longitudinal axis;

each single undulating portion being formed individually and thereafter being connected together along the longitudinal axis;

at least one of the single undulating portions having a length and a diameter, the length being less than the diameter upon inflation of the balloon; [and]

the single undulating portions having a length less than 2.5 mm; and

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wherein there is no appreciable shortening of the stent upon inflation of the balloon.

43. (amended) A longitudinally flexible stent, comprising:

a stent pattern having a plurality of single undulating portions extending circumferentially about a longitudinal axis, the single undulating portions being connected together along the longitudinal axis;

the single undulating portions having a length less than 2.5 mm;

the plurality of single undulating portions having open ends and closed ends, at least one of the open ends being no wider than one of the closed ends when the stent is mounted on an expandable member before expansion.